EW-VMF User's Guide

Overview

The EW-VMF is one of Holtek's device writers and is an upgraded version of the HT-VMF-02 writer. The EW-VMF supports EV Boards programmed using the old writers but also adds certain programming functions to some devices such as the VMF01A, VMF02A and VMF03A.

The EV Board contains the HT36, HT37, HT83 and HT86 series devices. Different MCUs require related EV Boards for simulation.

Simulation Listing

The current EV Boards in the market are the VMF01A, VMF02A and VMF03A which can replace all the older version EV Boards.

Note:

- The older EV Boards are currently in a Keep status. Simulations with the VMF0XA are recommended for new developments.
- It is not recommended to keep using the Music & Voice MCUs that have been replaced by the Enhanced MCUs.
- Eg:
  - The HT36 series MCU has been replaced by the enhanced HT37 series MCU.
  - The HT86030, HT86070, HT86072, HT86144, HT86192, HT86R192, HT86384, HT86R384, HT86576 and HT86768 have been replaced by the enhanced HT86AXX and HT86BXX series MCU.

Simulation Tool Listing Table:

- VMF01A: supports the HT37 series

Enhanced Music MCU								
Board Name	Core EV	Flash Memory	Support IC	Size	Version	Writer	History Name	Status
	HT37P00	MX29LV033C 32Mbit (TSOP 40)	HT37Q20, HT37Q30, HT37Q40, HT37Q50, HT37Q60, HT37Q70 HT37A20, HT37A30, HT37A40, HT37A50, HT37A60, HT37A70 HT37B30, HT37B50, HT37B70, HT37B90	Big	Ver4.1	EW-VMF	HT37P06	M (Keep)
	HT37P00	MX29LV640D 64Mbit (TSOP 48)		Big		EW-VMF	HT37P07	M (Keep)
	HT37P00	MX29LV033C 32Mbit (LQFP 80)		Small	Ver4.2	EW-VMF	HT37P08	M (Keep)
VMF01A	HT37P00	MX29LV320D 32Mbit (LQFP 80)		Small	Ver1.0	EW-VMF	HT37P0A	A(Promote)

- VMF02A: supports the HT83 series

Q-Voice™ MCU								
Board Name	Core EV	Flash Memory	Support IC	Size	Version	Writer	History Name	Status
	HT83P00	MX29LV033C 32Mbit (TSOP 40)	HT83004, HT83007, HT83010, HT83020, HT83038, HT83050, HT83074, HT83R074	Big		EW-VMF	HT83P06	C (Close)
	HT83P00	MX29LV033C 32Mbit (LQFP 80)		Small	Ver2.0	EW-VMF	HT83P07	M (Keep)
VMF02A	HT83P00	MX29LV320D 32Mbit (LQFP 80)		Small	Ver1.0	EW-VMF	HT83P0A	A(Promote)

- VMF03A: supports the HT86A and HT86B series

A/D Type Voice MCU								
Board Name	Core EV	Flash Memory	Support IC	Size	Version	Writer	History Name	Status
	HT86P10	MX29LV033C 32Mbit (TSOP 40)	HT86B05, HT86B10, HT86BR10, HT86B20, HT86B30, HT86BR30, HT86B40 HT86B50, HT86B60, HT86BR60, HT86B70, HT86B80, HT86B90	Big	Ver1.0	EW-VMF	HT86P16	M (Keep)
	HT86P10	MX29LV033C 32Mbit (LQFP 80)		Small	Ver2.1	EW-VMF	HT86P17	M (Keep)
VMF03A	HT86P10	MX29LV320D 32Mbit (LQFP 80)		Small	Ver1.0	EW-VMF	HT86P1A	A(Promote)

Enhanced Voice MCU								
Board Name	Core EV	Flash Memory	Support IC	Size	Version	Writer	History Name	Status
	HT86P10	MX29LV033C 32Mbit (TSOP 40)	HT86A36, HT86A72, HT86AR72	Big	Ver1.0	EW-VMF	HT86P16	M (Keep)
	HT86P10	MX29LV033C 32Mbit (LQFP 80)		Small	Ver2.1	EW-VMF	HT86P17	M (Keep)
VMF03A	HT86P10	MX29LV320D 32Mbit (LQFP 80)		Small	Ver1.0	EW-VMF	HT86P1A	A(Promote)

- The HT36 series has been replaced by the HT37 series

Music MCU								
Board Name	Core EV	Flash Memory	Support IC	Size	Version	Writer	History Name	Status
	HT36P00	MX29LV033C 32Mbit (TSOP 40)	HT36QXX, HT36AXX, HT36BXX	Big		EW-VMF	HT36P05	C (Close)
	HT36P00	MX29LV033C 32Mbit (TSOP 40)		Big		EW-VMF	HT36P06	M (Keep)
IC Replaced by HT37XXX, Flash Board Replaced by HT37PXX								

- The HT86xxx series has been replaced by the HT86Axx and HT86Bxx series

Voice MCU								
Board Name	Core EV	Flash Memory	Support IC	Size	Version	Writer	History Name	Status
	HT86P00	MX29LV033C 32Mbit (TSOP 40)	HT86030, HT86070, HT86072, HT86144, HT86192, HT86R192, HT86384,	Big		EW-VMF	HT86P05	C (Close)
	HT86P00	MX29LV033C 32Mbit (TSOP 40)	HT86R384, HT86576, HT86768	Big	Ver1.0	EW-VMF	HT86P06	M (Keep)
IC Replaced by HT86AXX and HT86BXX, Flash Board Replaced by HT86P1X								

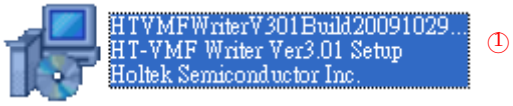
Software Installation

The software supplied with the EW-VMF is the HTVMFWriter.exe. Place the mouse at the status column and double click to check the version information as shown in the figure below.

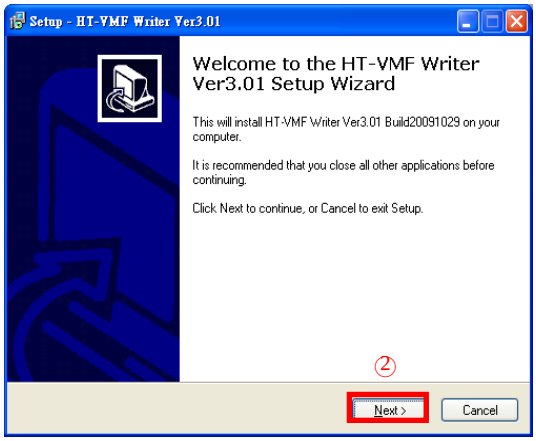
Software Download: http://www.holtek.com/english/tech/tool/voicetools_ht8386.htm#ide

Installation Procedure:

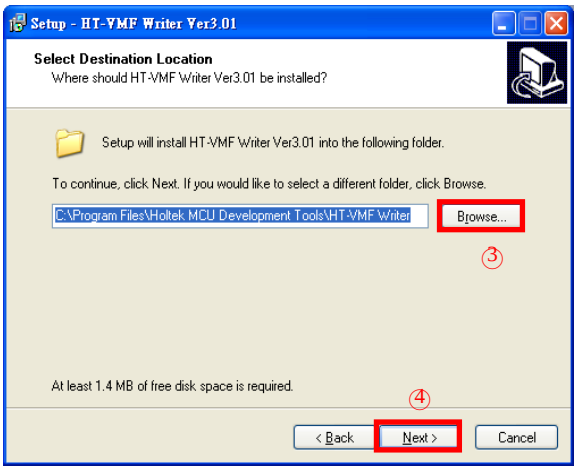
- Double click the Setup icon.



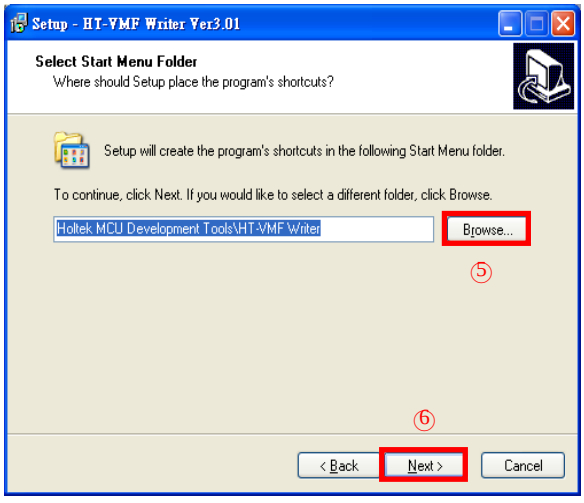
- Select Next to enter the next step.


Setup - HT-VMF Writer Ver3.01
Welcome to the HT-VMF Writer Ver3.01 Setup Wizard
This will install HT-VMF Writer Ver3.01 Build20091029 on your computer.
It is recommended that you close all other applications before continuing.
Click Next to continue, or Cancel to exit Setup.
②
Next >
Cancel

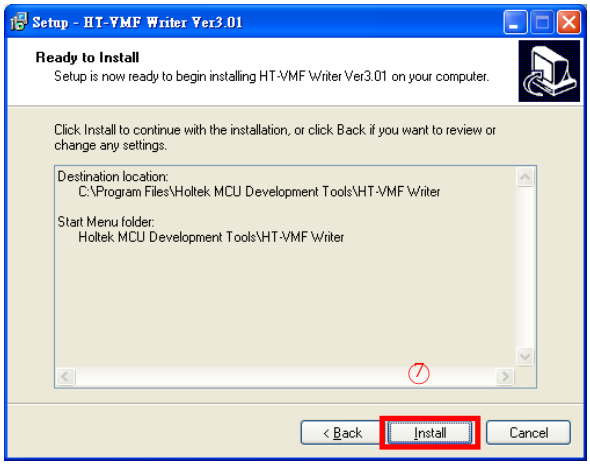
- Choose a directory for installation. Click Next for the next step.


Setup - HT-VMF Writer Ver3.01
Select Destination Location
Where should HT-VMF Writer Ver3.01 be installed?
Setup will install HT-VMF Writer Ver3.01 into the following folder.
To continue, click Next. If you would like to select a different folder, click Browse.
C:\Program Files\Holtek MCU Development Tools\HT-VMF Writer
Browse...
③
At least 1.4 MB of free disk space is required.
④
< Back
Next >
Cancel

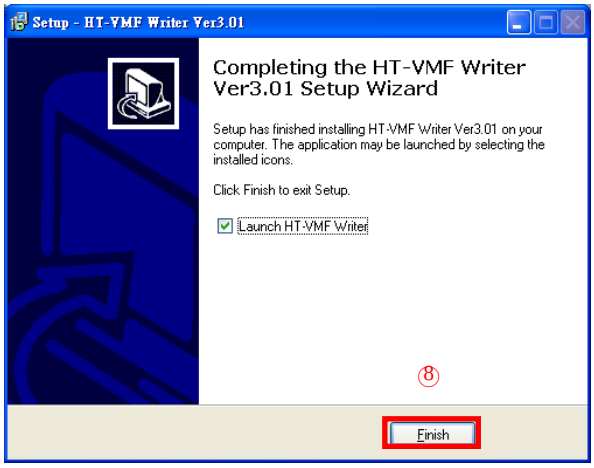
- Choose a Start Menu folder. Click Next for the next step.


Setup - HT-VMF Writer Ver3.01
Select Start Menu Folder
Where should Setup place the program's shortcuts?
Setup will create the program's shortcuts in the following Start Menu folder.
To continue, click Next. If you would like to select a different folder, click Browse.
Holtek MCU Development Tools\HT-VMF Writer
Browse...
⑤
⑥
< Back
Next >
Cancel

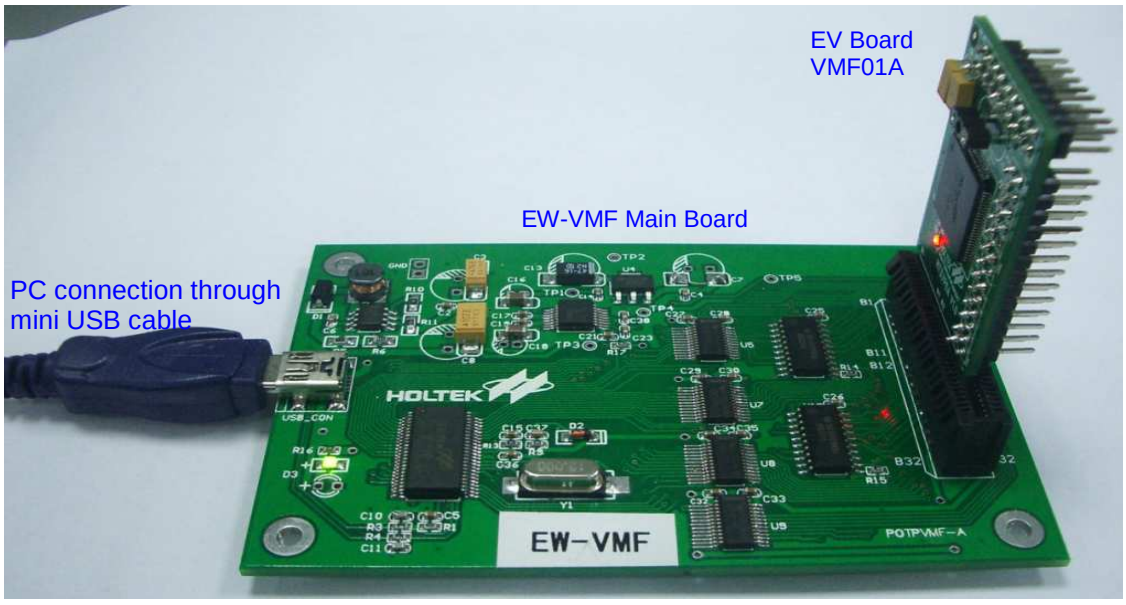
- Specify the installation path. Click Next to continue with the installation.


Setup - HT-VMF Writer Ver3.01
Ready to Install
Setup is now ready to begin installing HT-VMF Writer Ver3.01 on your computer.
Click Install to continue with the installation, or click Back if you want to review or change any settings.
Destination location:
C:\Program Files\Holtek MCU Development Tools\HT-VMF Writer
Start Menu folder:
Holtek MCU Development Tools\HT-VMF Writer
⑦
< Back
Install
Cancel

- Click Finish to complete the installation.


Setup - HT-VMF Writer Ver3.01
Completing the HT-VMF Writer Ver3.01 Setup Wizard
Setup has finished installing HT-VMF Writer Ver3.01 on your computer. The application may be launched by selecting the installed icons.
Click Finish to exit Setup.
Launch HT-VMF Writer
⑧
Finish

Hardware Connection



Software Description

Software Control Description

- File

Menu	Command
Open	Open an existing .COD file
File Name	Display the save path of the active file
File Size	Display the total byte numbers of the active files in decimal
File Checksum	Display the last four numbers of the active file bytes in hexadecimal

- Process

Menu	Command
Erase	Erase the window data from the specified Flash unit
Program	Write the window data to the specified Flash unit
Verify	Calibrate the window data of the specified Flash unit

- Auto Process

Menu	Command
Auto	Click the Auto button to execute in turn the operation corresponding to the specified function names.

- Demo Board Info

Menu	Command
More Info	Click the button to see more Flash information: MID, DID, data width, Flash size

- Process Range Setting

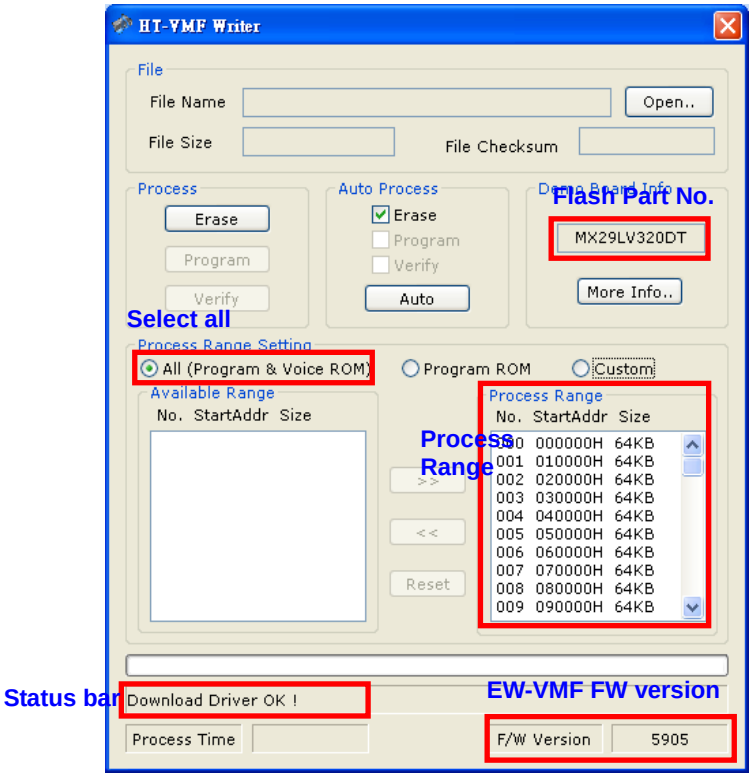
Menu	Command
All	Select all Flash units to whom all operations are valid. The operation will be separated in segments for execution. Each segment size differs according to the specification of the Flash unit.
Program ROM	The operation is only valid to the first 64 bytes of the Flash where the space is constantly used to save the MCU program
Custom	Operation only to the specified segment selected by the users
Available Range	Available Range: display the presently available segments
Process Range	Process Range: display the presently processed segments.
>>	Valid only under the Custom menu for adding the specified segments to the Process Range
<<	Valid only under the Custom menu for erasing the specified segments from the Process Range
Reset	Clear the present Process Range

- Miscellaneous

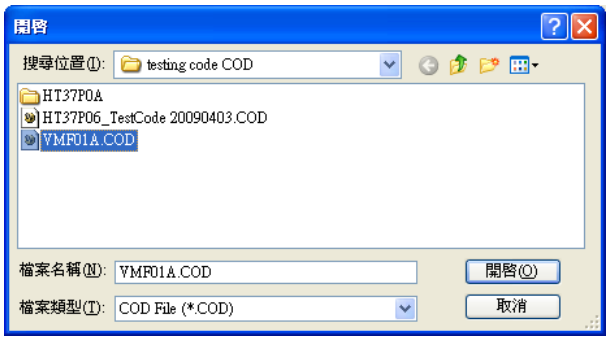
Menu	Command
Process Time	Display the operation time consumption of Erase, Program and Verify.
F/W Version	Display the EW-VMF FW version

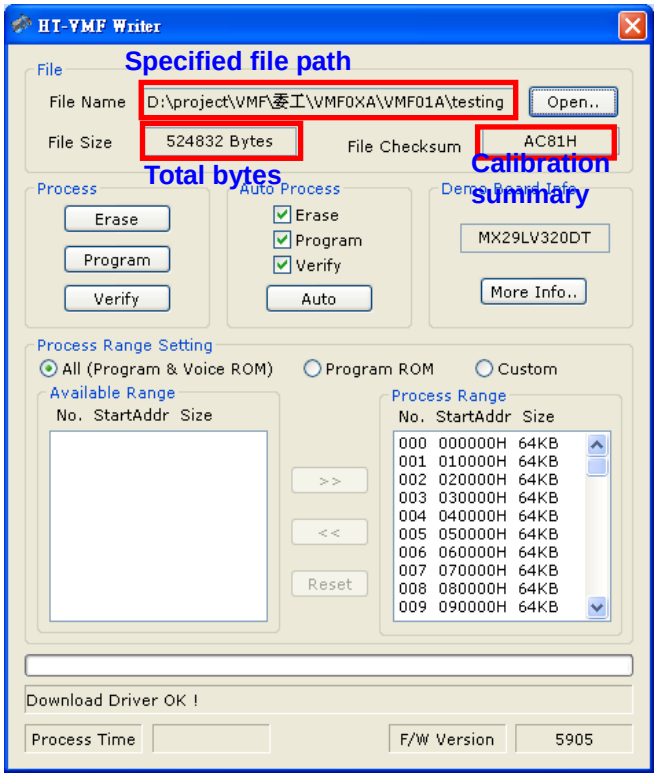
Writing Process

- Open the HTVMFWriter.exe after the hardware has been connected and the following dialog box will be shown in the normal condition.

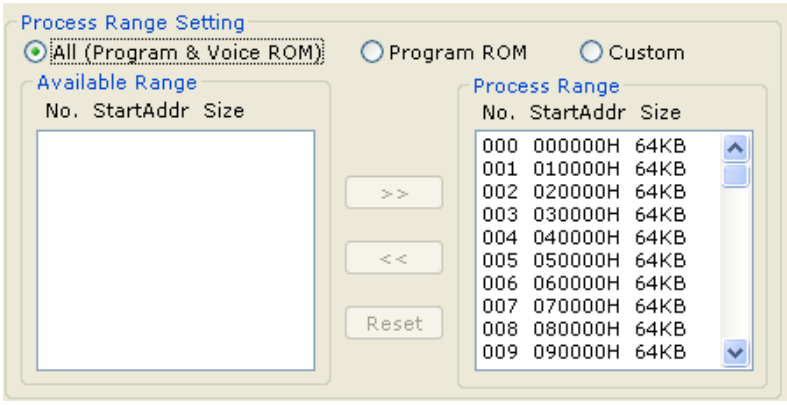


- Click 【Open…】and choose an active .COD file

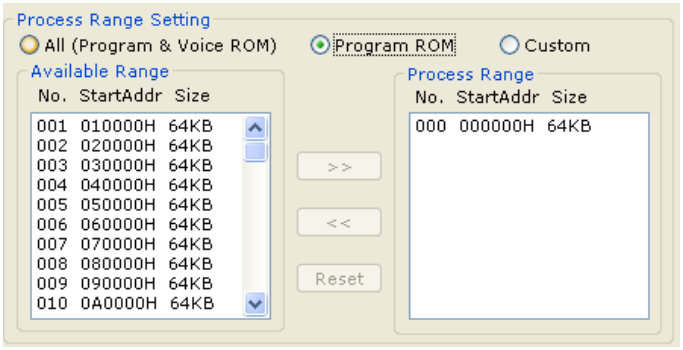




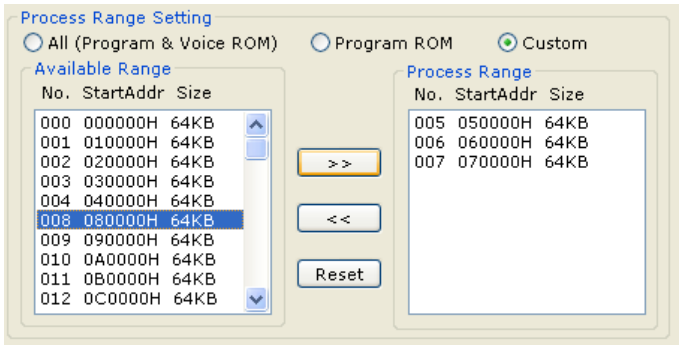
- Select the required Flash Process Range according to actual conditions. Three types are selectable:
  - All：select the full Flash



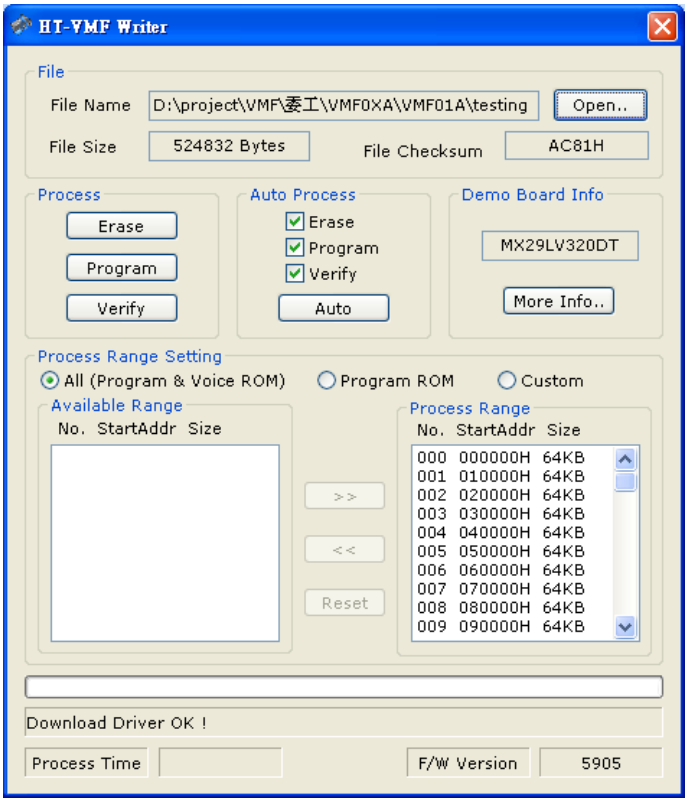
– Program ROM: select the first 64KB of the Flash only



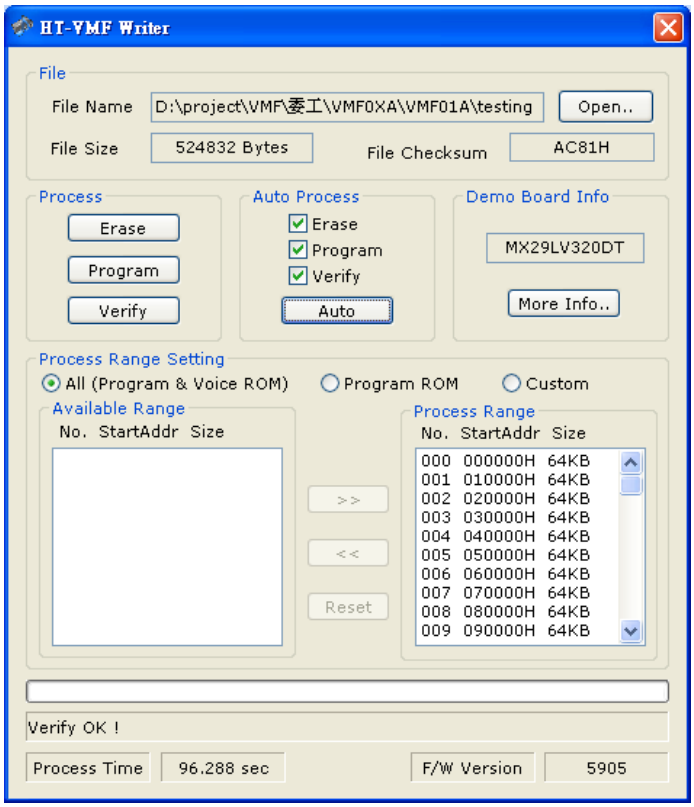
– Custom: select the process range according to the actual condition



– Click the process button according to requirements to execute the Flash operation.
The Erase command must be executed before programming each time.



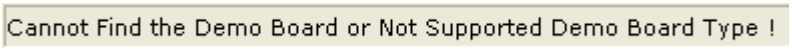
– After programming, remove the EV Board and place it on the application circuit for further simulation.



Special Considerations

EV Board Unable to Find

This may result from bad connection of the gold fingers. Try to heighten the EV Board a little.



Calibration Failed when Writing the Flash

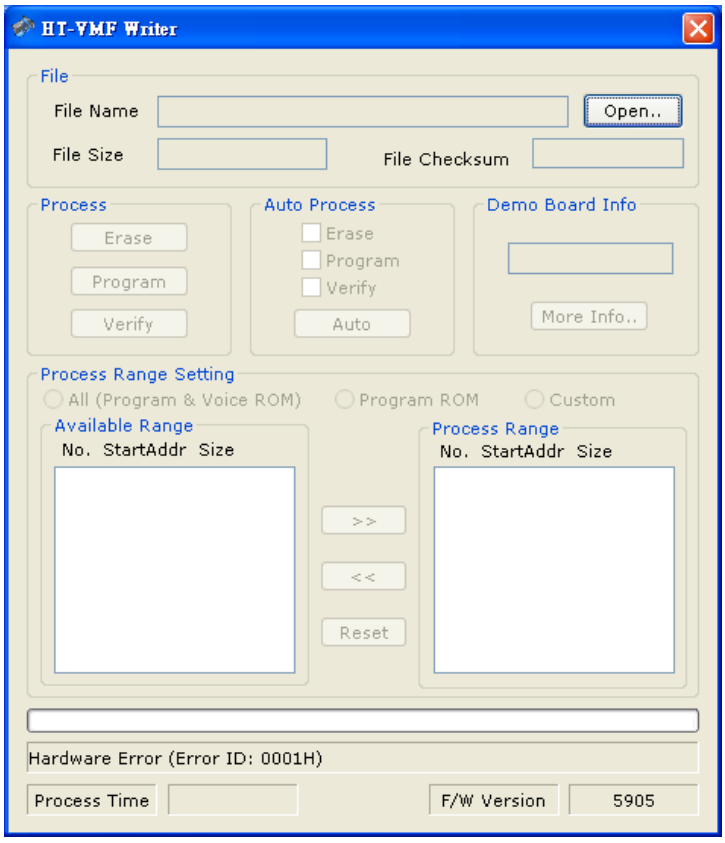
Erase command must be executed before programming.

Programming Successful but EV Board Unable to Simulate

Please refer to the simulation listing and specify the EV Board that supports the MCU you use.

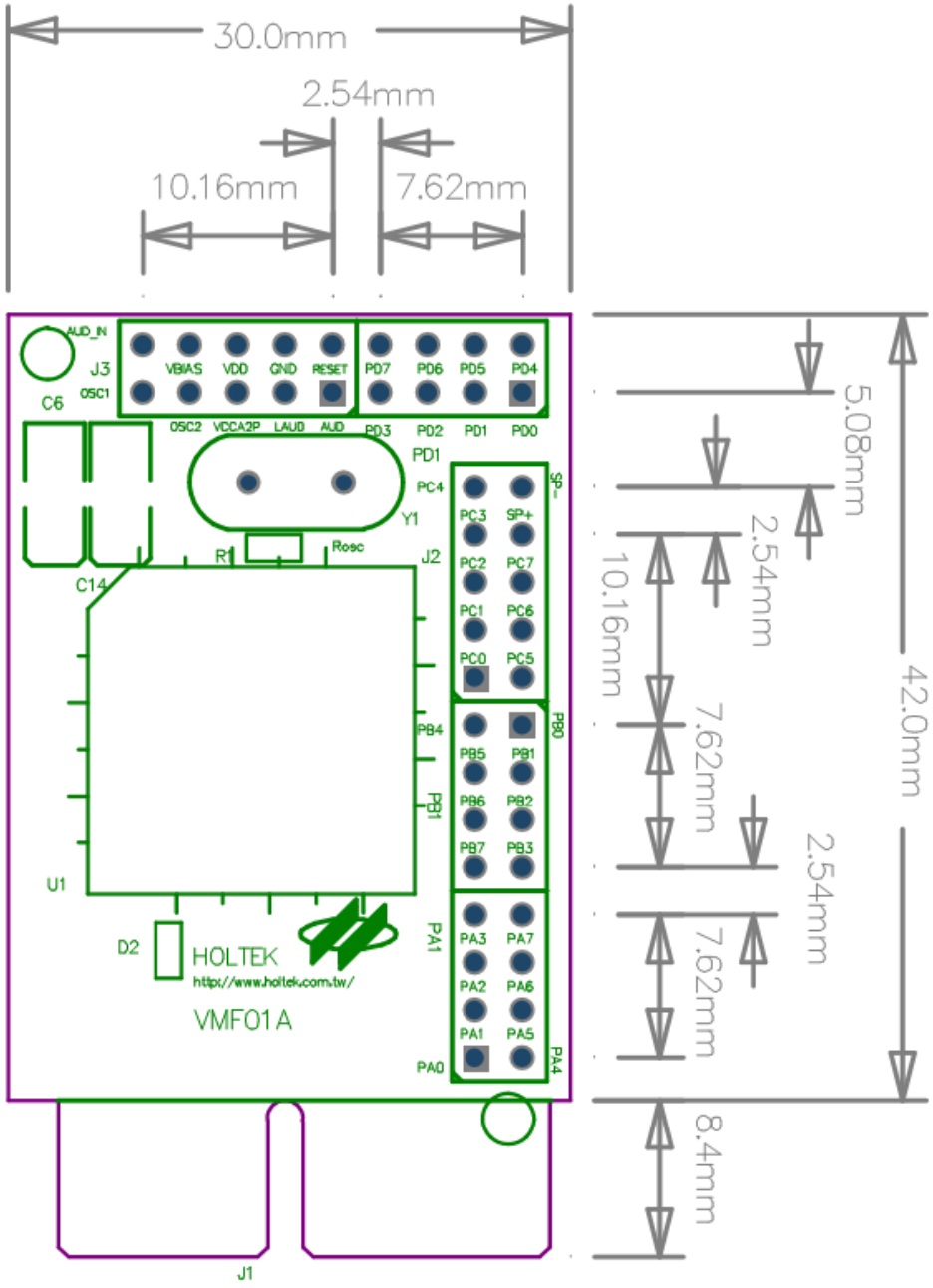
Hardware Error

If an error occurs, please contact Holtek FAE.

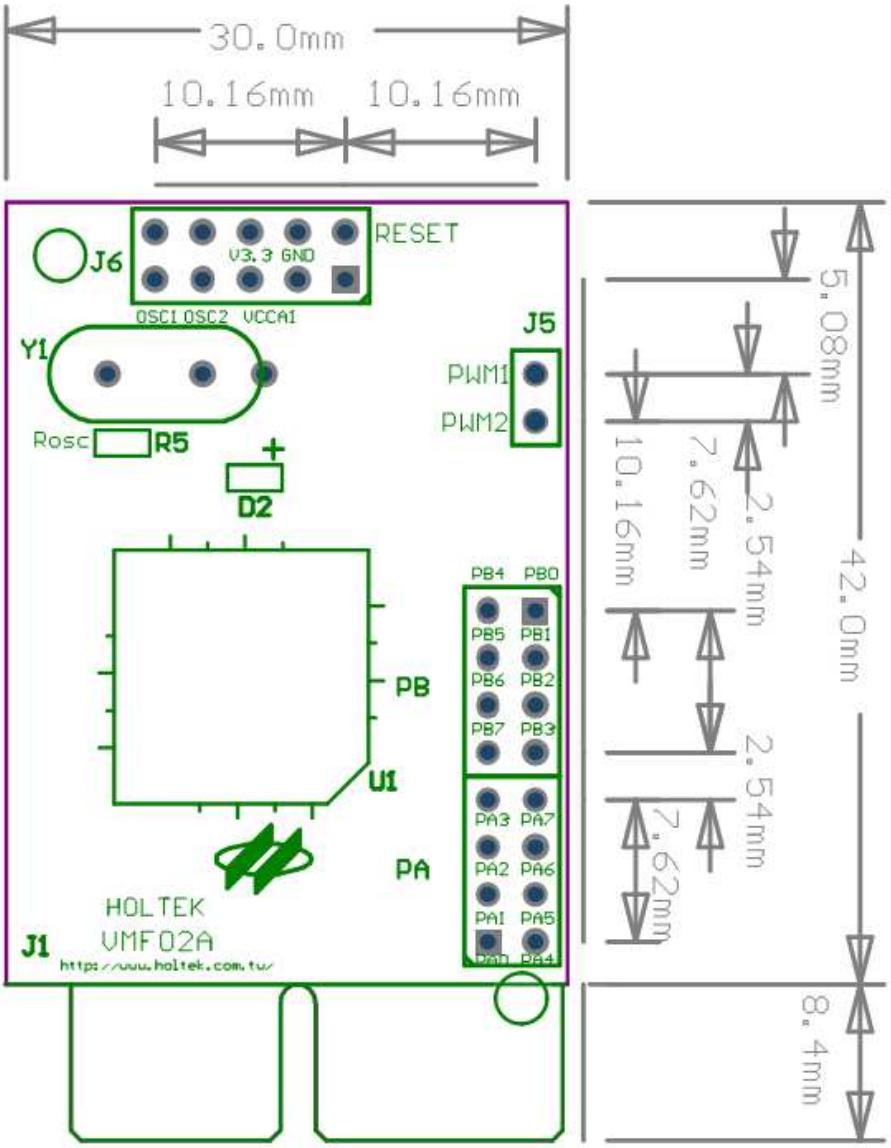


Main EV Board Dimensions

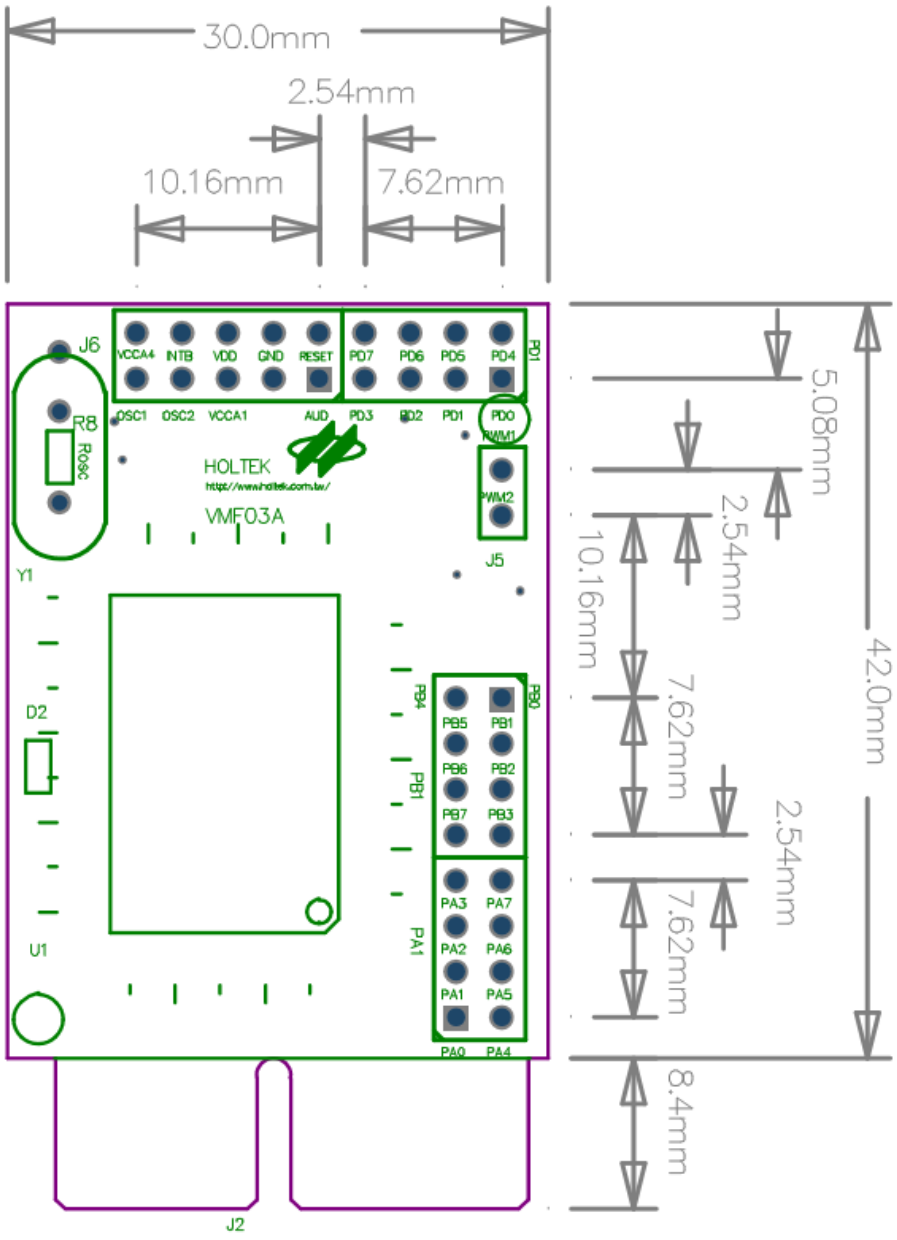
VMF01A PCB Dimension



VMF02A PCB Dimension

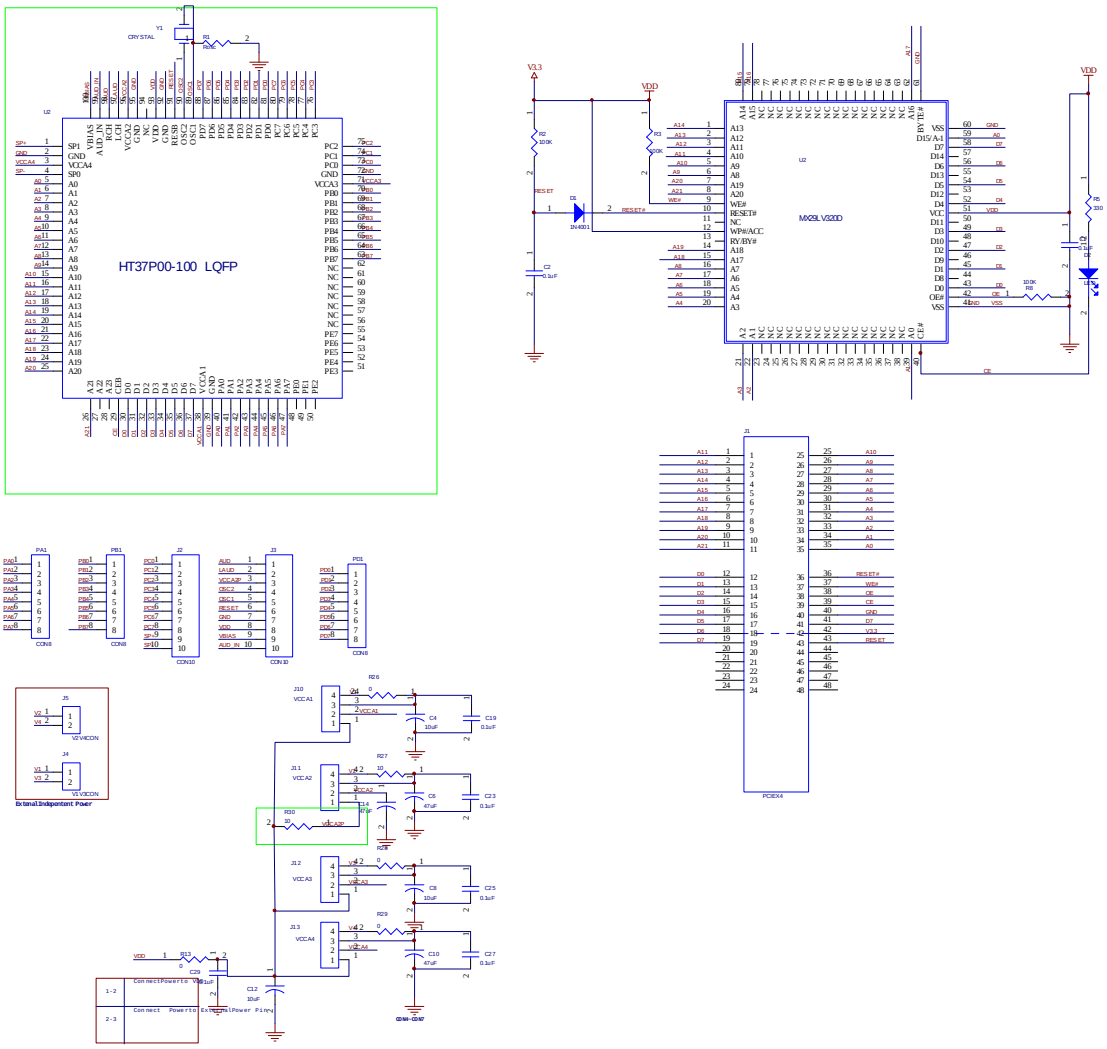


VMF03A PCB Dimension

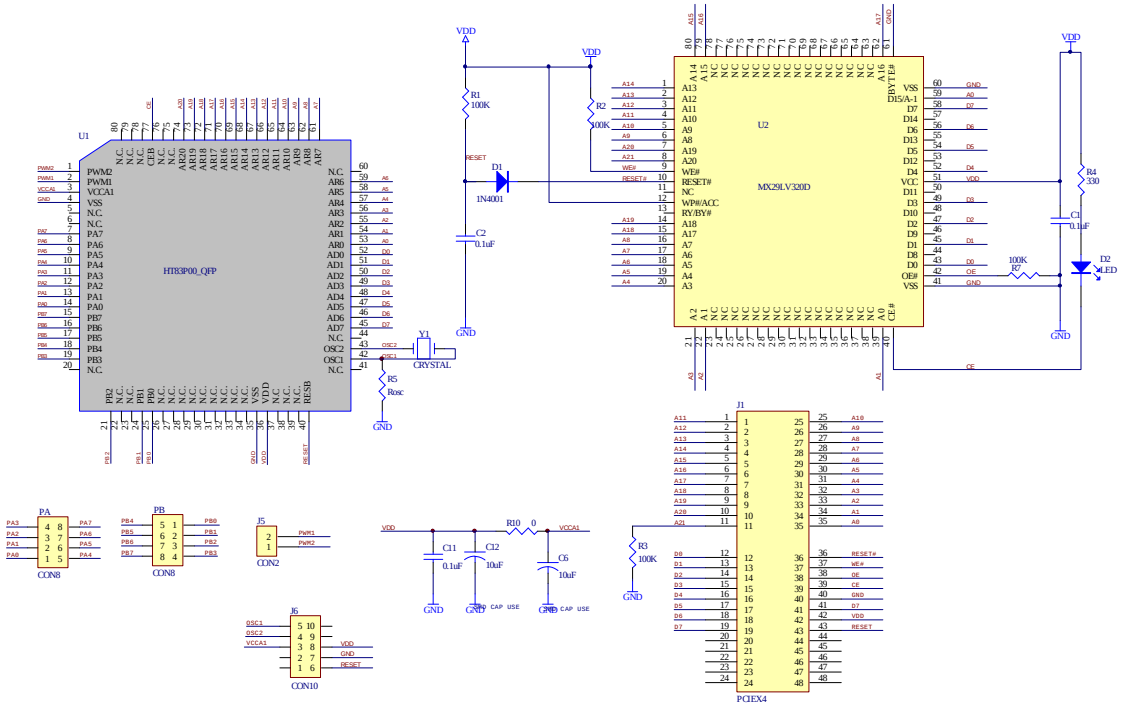


Main EV Board Application Circuits

VMF01A Circuits



VMF02A Circuits



VMF03A Circuits